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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,902	11/03/2003	Frank Eidam	BGEE 2 00025	4386
27885	7590	08/24/2007		
FAY SHARPE LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			EXAMINER BRITTAIN, JAMES R	
			ART UNIT	PAPER NUMBER
			3677	
			MAIL DATE	DELIVERY MODE
			08/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,902

Applicant(s)

EIDAM, FRANK

Examiner

James R. Brittain

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9,11-14,32-35,38-40,64-68 and 70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,11-14,32-35,38-40,64-68 and 70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-7, 9, 11-14, 32-35, 38-40, 64-68 and 70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 9, 32, 64 and 70 indicate that in a process step after installation the radially inner zone is permanently plastically deformed. This process step provides no apparent claimed structure and there is no objective criteria set forth to determine from viewing the locking ring before or after installation whether there has been any permanent plastic deformation of the ring or how the ring will be changed after installation or what the initial configuration was before installation. It is unclear if the claim scope is considered to only exist to define an article (1) before installation, (2) during the process of plastically deforming the ring and not before or after the step of plastic deformation or (3) after installation. Applicant's claims are not directed to an article alone, but appear as disguised form of process claims and are clearly indefinite as to scope. The claims fail to serve notice of what structure comprises the article. The remaining claims are indefinite because they depend from indefinite claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 7, 9, 12, 32, 34, 64, 66, 68 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615).

Gerwien et al. (figures 1-3) teaches locking ring structure assembled in a groove 16 of a device having a shaft 9 comprising an outer edge zone 2 and a radially inner circumferentially interrupted engagement zone which slants at an angle between 15° and 45°. The difference is that the device has an interrupted outer edge. It would have been obvious to have a closed outer edge in view of Euler (figures 1, 9) teaching the use of a closed outer edge being conventional in those environments when unneeded.

Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claim 32 above, and further in view of Perrow (US 6390925).

Further modification of the device of Gerwien et al. such that the groove has a shoulder and is asymmetric would have been obvious in view of Perrow (figure 9) in which the groove for the locking ring is asymmetric, has a shoulder 60 and is non-rectangular with a tapered surface so as to more securely mount the locking ring.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claim 9 above, and further in view of Draving (US 2275058).

Further modification of the locking ring of Gerwien et al. such that the inner and outer portions are at the same angle would have been obvious in view of Draving (figures 13, 14) that teaches the use of such a configuration to be old and well known.

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Claims 5, 35 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claims 1, 32 and 64 above, and further in view of McCarrick et al. (US 5713692).

Further modification of the locking ring of Gerwien et al. such that the slanting angle is between 0° and 20° would have been obvious in view of McCarrick et al. (figures 9, 10) in which the slanting angle of the inner portions 16 is within this range.

Claims 3, 13, 33 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerwien et al. (DE 19961709) in view of Euler (US 4364615) as applied to claims 1, 9, 32 and 64 above, and further in view of either Bross (US 2975667) or Turbant et al. (FR 2821906).

Further modification of the locking ring of Gerwien et al. such that the angle of the inner zone is less than the angle of the outer zone would have been obvious in view of either Bross (figures 3, 4) or Turbant et al. (figure 1) who teach that it is desirable to provide such a configuration to a locking ring.

Response to Arguments

Applicant's arguments filed May 22, 2007 have been fully considered but they are not persuasive. Applicant presents arguments with respect to the process step of plastically deforming the ring. However, there is no structural limitation that imparts a different configuration to the locking ring as indicated above. Therefore the argument is unpersuasive. Fundamentally, the claim construction is indefinite. While these claims are couched as article claims, the claim construction is such that an initial structure is provided and a process appears to be carried out on the initial structure resulting in a changed product. The scope of the article claims is therefore unclear and fail to serve notice to the public.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Brittain whose telephone number is (571) 272-7065. The examiner can normally be reached on M-F 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James R. Brittain/
Primary Examiner
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JRB